

Stillaguamish Watershed, WRIA 5

This focus sheet provides information on the availability of water for new uses in the Stillaguamish Watershed. This information provides a starting point for potential water users in determining the best strategies for securing water for a future project or proposal in this area.

The Stillaguamish Watershed, also known as Water Resource Inventory Area 5 (WRIA 5), is situated in the central part of Puget Sound and comprises the northwestern part of Snohomish County and the South central part of Skagit County. On its west side it is bounded by Puget Sound and its east side includes portions of the Cascade Mountain range. This watershed is sparsely populated.

This watershed includes the Stillaguamish River and its two forks which originate in the Cascade Mountains. The watershed also includes various smaller streams such as Jim, Pilchuck, and Canyon creeks.

Yearly precipitation ranges from 30-35 inches in the coastal area to over 150 inches in the Cascades Mountains. Most of this precipitation arrives during the winter months when water demands are the lowest, and only a fraction becomes available for human and economic uses. During the summer, the snowpack is gone and there is little rain so low stream flows are dependent on groundwater inflow. This means that groundwater and surface water are least available when water demands are the highest.

Much of the water in the Stillaguamish watershed is already legally spoken for ("appropriated"). Increasing demands for water from ongoing population growth, declining groundwater levels in some areas and the impacts of climate change have put Washington's water supplies at risk. The Stillaguamish Watershed increasingly lacks water when and where it is needed, particularly during the summer months.

Factors affecting water availability

Most of the basin is closed to new withdrawals of both surface water and groundwater, due to the potential adverse impacts on protected streams and rivers.



Definitions

Consumptive use: A use of water that diminishes the quantity or quality of water in the water source.

Instream flow rule: Establishes a water right for streams in a particular watershed. The rule specifies the amount of water needed in a particular place for a defined time for each stream. Typical instream flow rules now include broader water management strategies.

Maximum allocation limits: Limits on total withdrawals available above the instream flow levels for specific streams at specific times.

Mitigation plan: A scientifically-sound plan intended to avoid impairment to existing water rights or capturing water from a closed source.

Reservation: A reservation of water is a one-time finite amount of water set aside for specific future uses. Reservations typically provide year-round water and have conditions of use required to access them.

Permit-exempt well: The state Ground Water Code allows for certain uses of small quantities of groundwater without obtaining a permit from Ecology. (RCW 90.44.050)

Instream Resources Protection and Water Resources Program rule

WRIA 5 has an instream flow and water management rule (WAC 173-505) to protect senior water rights, maintain a healthy ecosystem, and to meet future water resource management objectives. Such rules are required by state law (RCW 90.54).

There are currently specific, finite amounts of water available from reservations of water established in the rule for new year-round consumptive uses. But once these limited amounts are appropriated, obtaining new year-round water supplies in this watershed will be a very difficult, expensive, and lengthy process requiring technical studies, mitigation plans, and possible legal assistance due to potential adverse impacts on protected streams and rivers. The reservations of water are discussed in the next section.

Limits on surface water diversions and groundwater withdrawals during high flows

WAC 173-505 establishes maximum allocation limits on certain rivers at certain times, to preserve the environmental benefits of natural annual high flows. These are discussed in the next section.

Coastal areas of Puget Sound

Any proposed water withdrawals in the coastal areas of Puget Sound are evaluated for the risk of seawater intrusion into fresh groundwater supplies. Coastal applicants may need to develop an adequate mitigation plan to address the risk of seawater intrusion.

Water currently available for new uses**Reservations of water for specific purposes**

Specific, finite quantities of water are available for domestic (household) uses and for stock watering purposes.

- Domestic reservation: 5 cubic feet per second (cfs) is reserved for permit-exempt groundwater use for domestic purposes. This total amount is further allocated as follows (WAC 173-505-090):
 - A maximum of 2 cfs can be appropriated from the North Fork Stillaguamish basin.
 - A maximum of 1.5 cfs can be appropriated from the South Fork Stillaguamish basin.
- Stock watering reservation: 1 cfs is reserved for stock watering uses on riparian grazing lands (WAC 173-505-080).

Interruptible water supplies

New water rights outside of the reservations are available, but would be subject to interruption when instream flows are not met on the Stillaguamish River and designated tributaries. Due to hydraulic connection between groundwater and surface water, groundwater use is also limited by surface water flows.

Withdrawals from lakes and ponds are limited to single in-house domestic uses only, not to exceed 150 gallons per minute (gpm). (WAC 173-505-060)

Maximum allocation limits on certain rivers

At certain times of the year, there is some water above the instream flows available for new uses. However, to preserve the environmental benefits of natural annual high flows, the rule limits the total amount allowed for allocation in specific streams at specific times. Uses are subject to the instream flows – that is, the water use may be interrupted if stream flow levels fall below the instream flows.



Name	Dates	Maximum total allocations (cfs=cubic feet per second)
Canyon Creek	Dec 1 – May 31	40 cfs
North Fork Stillaguamish River from river mile 17.6 to headwaters	Nov 1 – June 30	120 cfs
North Fork Stillaguamish River to river mile 17.6	Oct 16 – June 30	150 cfs
Pilchuck Creek	Oct 16 – May 31	50 cfs
South Fork Stillaguamish River	Nov 1 – June 15	150 cfs
Squire Creek	Nov 1 – Feb 15 and May 1 – June 30	20 cfs
Stillaguamish River	Oct 16 – June 30	300 cfs

Additional options for water supplies

You are encouraged to connect to an existing water system if available. This is the simplest and fastest option.

The groundwater permit exemption allows certain users of small quantities of groundwater (most commonly, single residential well owners) to construct wells and develop their water supplies without obtaining a water right permit from Ecology. (For more information about the groundwater permit exemption, refer to www.ecy.wa.gov/pubs/fwr92104.pdf.) The permit exemption may not be available to prospective water users in certain areas that have been closed to further appropriation because there is limited or no water available. Check with Ecology staff at the regional office for more information.

If you cannot hook-up to an existing system and are unable to access water from the reservations, processing an application through the Cost Reimbursement Program may be an option www.ecy.wa.gov/pubs/0511016.pdf.

For more information on this and other options, refer to “Alternatives for Water Right Application Processing” www.ecy.wa.gov/pubs/1111067.pdf.

Pending water right applications in this watershed

Washington water law is based on the “prior appropriation” system, often called “first in time, first in right.” Applications for water from the same source must be processed in the order they are received. (There are certain exceptions, see “Additional options for processing water right applications” above.)

Ecology asks anyone who needs a water right (new, change, or transfer) to submit the pre-application consultation form and meet with us to review your water supply needs and project proposal.

- Apply for a New Water Right
<http://www.ecy.wa.gov/programs/wr/rights/newrights.html>
- Apply to Change or Transfer a Water Right or Claim
http://www.ecy.wa.gov/programs/wr/rights/change_transfer_use.html

The map in this document shows some of the factors that will be considered when evaluating water right permit applications. Here are some information sources to assist you with your research:

- Locate and research water rights on land parcels anywhere in the state (Water Resource Explorer)
<http://www.ecy.wa.gov/programs/wr/info/webmap.html>
- Pending Water Right Applications by County
<http://www.ecy.wa.gov/programs/wr/rights/tracking-apps.html>
- Subscribe to a water right application RSS feed for a county or WRIA
http://www.ecy.wa.gov/programs/wr/rights/wr_app_rss.html
- WRIA map showing the total number of water right claims, certificates, permits and applications
<http://www.ecy.wa.gov/programs/wr/rights/Images/pdf/waterright-wria-maps.pdf>
- Search and view well reports using a variety of search tools
<https://fortress.wa.gov/ecy/waterresources/map/WCLSWebMap/default.aspx>

For more information

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